

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A continuous casting mold for casting molten metals, ~~particularly molten steel materials~~, at high casting rates to form polygonal billet, bloom, and preliminary section castings, comprising a tubular mold made of copper or of copper alloys whose entry cross-section on a pouring-in side has a cross-section which is enlarged compared to an exit cross-section on a casting exit side, the mold also having corner radii, wherein the mold has an inner geometrical cross-section below the entry cross-section, the inner geometrical cross-section being configured to have shape having dimensions analogous to a locally deducible quantity of a solidification heat for the continuous casting according to a temperature profile curve representing temperature progression along the mold height, starting with a cross-section enlargement on the pouring-in side opposite the exit cross-section on the casting exit side, wherein on the pouring-in side, in an area of the casting surface a first conical section, and immediately adjacent a second

section having greater conicity, and beneath the section of greater conicity, a section with continuously variable conicity corresponding to casting shell growth and contraction of the continuous casting up to the exit cross-section are successively arranged such that the wall volume of the mold is reduced according to the dissipated heat quantity per time unit and a curve representing the amount of heat dissipation across the mold height by enlarging the exterior surface of the tubular mold by means of notches and by reducing the wall thickness in at least separate height ranges of the mold analogous to thermal expansion of the mold.

2. (Canceled)

3. (Canceled)

4. (Previously presented) The continuous casting mold according to claim 1, wherein, starting at the entry cross-section, a centric, approximately parabola-shaped recess is provided for each inner cross-section side of the mold.

5. (Previously presented) The continuous casting mold according to claim 4, wherein the approximately parabola-shaped recess diminishes in the direction towards the casting exit side.

6. (Previously presented) The continuous casting mold according to claim 4. wherein the length of the approximately parabola-shaped recess extends approximately into half the tubular mold height.

7. (Currently amended) The continuous casting mold according to claim 4, wherein the length of the approximately parabola-shaped recess corresponds to the distance ~~amount~~ of contraction of the casting at the height of the respective broadside and/or narrowside of the mold cross-section.

8. (Previously presented) The continuous casting mold according to claim 1, wherein one ~~adjoining~~, circumferentially extending surface in the area of each corner radius in the ~~cross-section~~ plane of the entry cross-section extends downwards toward the casting surface and connects to an analogous identical counter surface starting at the casting surface up to a transition into the geometrical cross-section ~~form~~.

9. (New) A method for making a continuous casting mold for casting molten metals at high casting rates to form polygonal billet, bloom, and preliminary section castings, the method comprising the steps of: providing a tubular mold made of copper or of copper alloys with an entry cross-section on a pouring-in side that has a cross-section which is enlarged compared to an exit cross-section on a casting exit side, the mold also having corner radii; configuring an inner geometrical cross-section of the mold below the entry cross-section to have dimensions analogous to a locally deducible quantity of a solidification heat for the continuous casting according to a temperature profile along the mold height, starting with a cross-section enlargement on the pouring-in side opposite the exit cross-section on the casting exit side; and successively arranging, on the pouring-in side, in an area of the casting surface a first conical section, and immediately adjacent a second section having greater conicity, and beneath the section of greater conicity, a section with continuously variable conicity corresponding to casting shell growth and contraction of the continuous casting up to the exit cross-section so that the wall volume of the mold is reduced according to the dissipated heat quantity per time unit and a curve representing the amount of heat dissipation across the mold height by enlarging the exterior surface of the tubular

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mold by means of notches and by reducing the wall thickness in at least separate height ranges of the mold analogous to thermal expansion of the mold.